



County of Door HIGHWAY DEPARTMENT

1001 S. Duluth Avenue
Sturgeon Bay, WI 54235

John P. Kolodziej, PE
Highway Commissioner
(920) 746-2500
kolodziej@co.door.wi.us

Ms. Kristin DuFresne,
Department of Natural Resources
2984 Shawano Avenue
Green Bay, WI 54313-6727

June 30, 2016

Subject: Door County Highway Department Salt Storage Facility
WDNR BRRTS #02-15-554088

Dear Ms. DuFresne,

Enclosed are the latest water sampling results for the subject site. Samples were obtained from 10392 Northwoods Drive and 10397 STH 57. Samples were not taken at 10363 STH 57 because a new deep water well was installed at this site. The table below identifies the sodium and chloride levels found during all of our sampling years since 2009.

	2009 Chloride Levels mg/l	2013 Chloride Levels mg/l	2015 Chloride Levels mg/l	2016 Chloride Levels mg/l	2009 Sodium Levels mg/l	2013 Sodium Levels mg/l	2015 Sodium Levels mg/l	2016 Sodium Levels mg/l
10392 Northwoods Drive	997	570	637	526	606	412.2	374	311
10363 STH 57	393	339	15.5	NA	226	208.4	6.42	NA
10397 STH 57	704	Not Available	461	414	183	Not Available	487	278

The table represents a general decline in the chloride and sodium levels since the County installed new storage facilities, modified handling procedures, and installed storm water management facilities. The County intends to annually check these chemical levels in the water from the remaining two shallow wells.

Should you have any questions, please do not hesitate to contact my office.

Sincerely,

John P. Kolodziej, PE
Highway Commissioner



1990 Prospect Ct., Appleton, WI 54914 * 800-801-7590

RUSSELL SALFI
EPHRAIM WELL WATER TESTING
10285 TOWNLINE RD
SISTER BAY, WI 54234

Home Owner DOOR COUNTY HIGHWAY D
Well ID/Address 10392 NORTHWOODS DR
Well City SISTER BAY
Sample Location OUTSIDE FAUCET
Lab # 411310
Collected By/Date WEISGERBE 6/15/2016

Report Date 24-Jun-16

Analyte	Result	Units	LOD	LOQ	Dil	Dig	Date	Run Date	Mthd	Analyst	QC Code
General											
Wet Chemistry											
Chlorides	526	mg/l	30	100	20		6/20/2016	300.0	ER		1
(as Cl) Small amounts of chloride are natural; the chloride ion is one of the major inorganic anions in water. However, levels above 200 mg/L are undesirable and often unnatural. They can indicate road salt, septic waste or fertilizer contamination.											
Inorganic											
Metals											
Calcium	86.1	mg/l	0.02	0.07	1		6/23/2016	200.7	NMP		1
(as total Ca) Common constituent of water, derived from dissolved limestone and dolomite. Primary cause of hard water and scaling. The EPA does not regulate Calcium levels in drinking water.											
Sodium	311	mg/l	0.38	1.22	1		6/23/2016	200.7	NMP		1
(as total Na)...Sodium is a common element found in ground water and is an essential nutrient for humans. In large concentration it may affect persons with cardiac difficulties. The EPA has set a health advisory limit for sodium in drinking water for 200 mg/L (parts per million). Elevated levels in well water may indicate agricultural or road salt runoff.											

LOD Limit of Detection

None Detected = Result was less than the LOD

LOQ Limit of Quantitation

Code

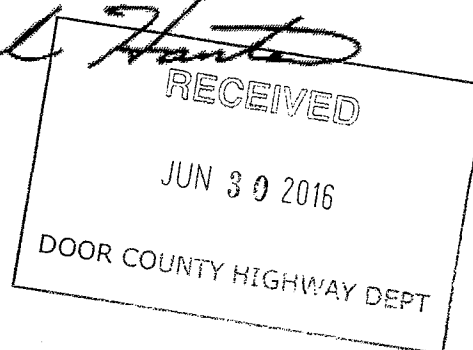
Comment

1

All laboratory QC requirements were met for this sample.

Laboratory Director

Michael Hunter



Please visit our website at www.cleanwatertesting.com

WI DNR Lab Certification # 445126660

EPA ID# WI 00063

WI Dept of Ag Lab ID # 152673-D3

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1990 Prospect Ct., Appleton, WI 54914 * 800-801-7590

RUSSELL SALFI
EPHRAIM WELLWATER TESTING
10285 TOWNLINE RD
SISTER BAY, WI 54234

Home Owner DOOR COUNTY HIGHWAY D
Well ID/Address 10397 ST HWY 57
Well City SISTER BAY
Sample Location OUTSIDE FAUCET
Lab # 411307
Collected By/Date WEISGERBE 6/15/2016

Report Date 24-Jun-16

Analyte	Result	Units	LOD	LOQ	Dil	Dig	Date	Run Date	Mthd	Analyst	QC Code
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General

Wet Chemistry

Chlorides	414	mg/l	30	100	20		6/20/2016	300.0	ER		1
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(as Cl) Small amounts of chloride are natural; the chloride ion is one of the major inorganic anions in water. However, levels above 200 mg/L are undesirable and often unnatural. They can indicate road salt, septic waste or fertilizer contamination.

Inorganic

Metals

Calcium	27.0	mg/l	0.02	0.07	1		6/23/2016	200.7	NMP		1
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(as total Ca) Common constituent of water, derived from dissolved limestone and dolomite. Primary cause of hard water and scaling. The EPA does not regulate Calcium levels in drinking water.

Sodium	278	mg/l	0.38	1.22	1		6/23/2016	200.7	NMP		1
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(as total Na)...Sodium is a common element found in ground water and is an essential nutrient for humans. In large concentration it may affect persons with cardiac difficulties. The EPA has set a health advisory limit for sodium in drinking water for 200 mg/L (parts per million). Elevated levels in well water may indicate agricultural or road salt runoff.

LOD Limit of Detection

None Detected = Result was less than the LOD

LOQ Limit of Quantitation

• Code

Comment

1

All laboratory QC requirements were met for this sample.

Laboratory Director

Michael Hunter

RECEIVED

JUN 30 2016

DOOR COUNTY HIGHWAY DEPT

Please visit our website at www.cleanwatertesting.com

WI DNR Lab Certification # 445126660

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